



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION II**

FEDERAL ON-SCENE COORDINATOR'S REPORT

**IDEAL COOPERAGE INC. SITE (NON-NPL)
JERSEY CITY, HUDSON COUNTY, NEW JERSEY**

Site Identification Number: 6P

December 1990 - November 1991

Prepared by:

Roy F. Weston, Inc.
Region II - Technical Assistance Team
Major Programs Division
Edison, New Jersey

Document Number: TAT-02-F-06537

For:

United States Environmental Protection Agency
Region II - Removal Action Branch
Edison, New Jersey

TABLE OF CONTENTS

	<u>PAGE</u>
<u>I. Summary of Events</u>	
A. Site Conditions and Background	1
1. Initial Situation	1
2. Location of Hazardous Substances	5
3. Cause of the Release or Discharge	5
4. Efforts to Locate and Obtain Response from Responsible Parties	5
B. Organization of the Response	6
C. Injury or Possible Injury to Natural Resources	8
1. Content and Time of Notice to Natural Resource Trustees	8
2. Trustee Damage Assessment and Restoration Activities	8
D. Chronological Narrative of Response Actions	8
1. Threat Abatement Actions	8
2. Treatment, Disposal, or Alternative Technology Approaches	12
3. Public Information and Community Relations Activities	13
E. Resources Committed	15
<u>II. Effectiveness of Removal Actions</u>	
A. Actions by PRPs	15
B. Actions by State and Local Forces	16
C. Actions by Federal Agencies and Special Teams	16
D. Actions by Contractors, Private Groups, and Volunteers	16

III. Difficulties Encountered

- | | |
|--|----|
| A. Items That Affected the Response | 17 |
| B. Issues of Intergovernmental Coordination | 17 |
| C. Difficulties Interpreting, Complying with, or Implementing Policies and Regulations | 17 |

IV. Recommendations

- | | |
|--|----|
| A. Means to Prevent a Recurrence of the Discharge or Release | 17 |
| B. Means to Improve Response Actions | 17 |
| C. Proposals for Changes in Regulations and Response Plans | 18 |

LIST OF FIGURES

	<u>PAGE</u>
Figure 1 - Location Map	2
Figure 2 - Site Map	3
Figure 3 - Test Pit Location Map	10

LIST OF TABLES

Table 1 - Organization of the Response	7
Table 2 - Materials and Disposition	14
Table 3 - Removal Project Estimated Total Cost Summary	15

ATTACHMENT

List of Supplemental Documents

EXECUTIVE SUMMARY

SITE: Ideal Coöperage Inc.

LOCATION: Jersey City, Hudson County, New Jersey

PROJECT DATES: December 1990 - November 1991

INCIDENT DESCRIPTION:

Ideal Coöperage Inc. operated a steel drum reconditioning facility from 1952 to 1981 at 39 New York Avenue, between industrial and residential sections of Jersey City, New Jersey. A 1.3-acre portion of the site was reportedly used for empty drum storage, and has remained abandoned since drum recycling operations ceased. The vacant site had been used in recent years as an illegal dump for trash, construction debris, and abandoned cars, and as a play area for neighborhood children. Although various city agencies attempted to keep the property secure and free of trash, dumping and trespassing were continual problems.

The property was the subject of numerous inspections and assessments by the EPA, NJDEP, the Hudson County Health Department and the Jersey City Fire Department since the late 1970s. Over 600 drums were originally identified on site. However, more accurate estimates revealed that approximately 1,800 drums were abandoned on site, of which nearly 180 drums contained liquid or solid material. Many empty drums were severely deteriorated and appeared to have been on the property for many years. Since much of the site consisted of fill material, buried drums and/or contaminated subsurface soil may have also existed. No PRP was found financially able to undertake or participate in a cleanup of the site.

ACTIONS:

The site was referred by the NJDEP to the EPA on February 3, 1989. EPA and its Technical Assistance Team (TAT) contractor performed several preliminary site investigations from February to November 1989 which identified drums containing unknown materials. An Action Memorandum authorizing a removal action was approved in September 1990, and preparation for site activities was accomplished during the first quarter of 1991. EPA, TAT, and the Emergency Response Cleanup Services (ERCS) contractor mobilized to the site on May 7, 1991 to begin a six-week removal action.

Site preparation and drum staging were performed during the first week of site activity. ERCS completed drum staging and segregation during the second week, and shipped the first of eight truckloads of empty drums for off-site recycling. A total of 1,786 empty drums were eventually removed by the completion of site activities. As ERCS finished staging all empty and filled drums, TAT began sampling, field-testing, and classifying the drums which contained material. Approximately 180 drums were field-tested during the removal action. Drum bulking and

overpacking began during the third week of site operations. Six test pits were also excavated to investigate subsurface soil conditions. One area of the site was identified as possibly containing mercury-contaminated surface soil. Drum bulking, overpacking, and field testing were completed during the fourth and fifth weeks of site work. During the final week, the first drums of hazardous waste were shipped off site. Composite samples of the remaining waste streams were also created and submitted for laboratory analysis. After the sixth week, only single-day trips to the site were necessary to complete the removal action. The final trailer load of empty drums was shipped off site in mid-June, and two truck loads of hazardous wastes were shipped off site in September and October 1991. A total of 85 drums of hazardous liquids and solids were shipped off site for recycling, treatment, and disposal.

Additional soil sampling and laboratory analysis were performed in order to determine if mercury contamination existed in the test pit # 4 area of the site. The presence of mercury-contaminated soil was verified, but additional sampling will have to be performed in order to properly assess the extent and degree of contamination.



J. Daniel Harkay, On-Scene Coordinator
USEPA Region II
Edison, New Jersey
June 1992

FEDERAL ON-SCENE COORDINATOR'S REPORT
IDEAL COOPERAGE INC. SITE
JERSEY CITY, HUDSON COUNTY, NEW JERSEY

I. SUMMARY OF EVENTS

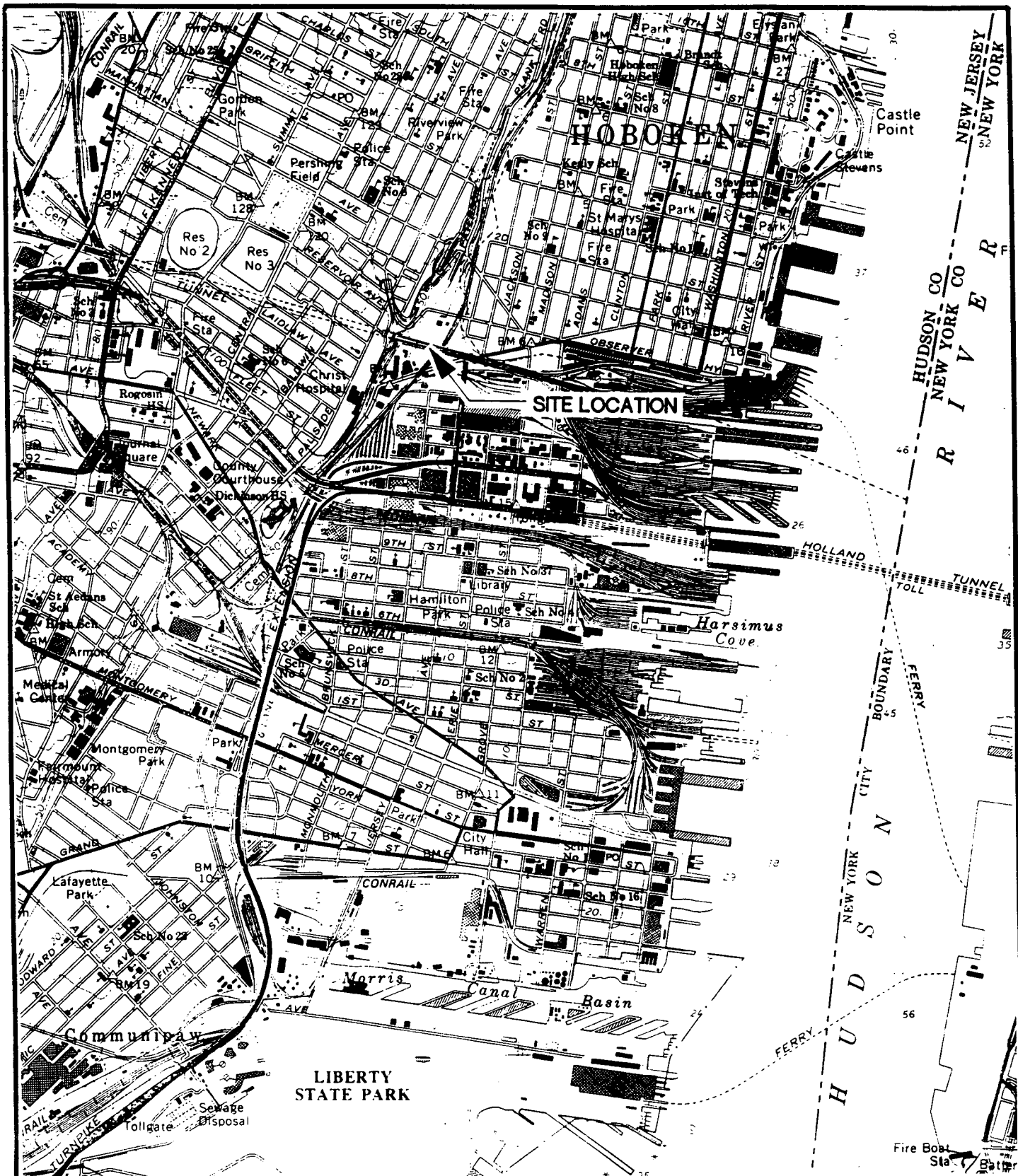
A. Site Conditions and Background

1. Initial Situation

The Ideal Cooperage site is located at 39 New York Avenue, between industrial and residential sections of Jersey City, New Jersey. A location map is presented as Figure 1. Ideal Cooperage Inc. operated a steel drum reconditioning facility from 1952 to 1981. The company originally leased the property from the New York Central Railroad Company. In April 1984, the company purchased the entire 4.5-acre site. The property consists of two parcels of land situated at two different elevations and separated by a 50-90 foot cliff. Facility buildings and drum reconditioning operations were located on the lower parcel, while the vacant upper parcel was used for empty drum storage. When reconditioning operations ceased in the fall of 1981, Ideal Cooperage declared bankruptcy and subdivided the property into two parcels of land (Block 712, Lots A.10 and A.11). The lower 3.2-acre parcel of land (Lot A.11) was sold to the Brinke Transportation Corporation in October 1982 and redeveloped as a trucking terminal. Ownership of the upper parcel (Lot A.10) was retained by Ideal Cooperage until November 1984, when ownership was transferred to three former principals of the company. It is the upper parcel that was the subject of the CERCLA removal action. The site has not been included on the National Priorities List (NPL).

The elevated site, approximately 1.3 acres in size, is relatively flat, with almost its entire perimeter sloping downward toward the property line. Low brush and small trees cover the surface area of the site. Aerial photographs and tax maps of the site from the early- and mid-1900s indicated that only 40-50 % of the property was once elevated, with the edge of the elevation being roughly parallel to New York Avenue. The drastic change in topography suggested that a large portion of the site was created by the deposition of fill material and construction debris.

The site is bordered on the west and north by New York Avenue, on the south by the Erie-Lackawanna (Conrail) Railroad Line, and on the east by the former drum reconditioning property, which is now occupied by Sal-Son Trucking Company, Inc. A site map is presented as Figure 2. Commercial and industrial properties are also located in the vicinity of the site. The nearest residential areas are located approximately 1,000 feet to the west and northwest of the site. Christ Hospital is located one-half mile southwest of the property. Over 1,000 residents live or work within a quarter-mile radius of the site.



Roy F. Weston, Inc.
MAJOR PROGRAMS DIVISION

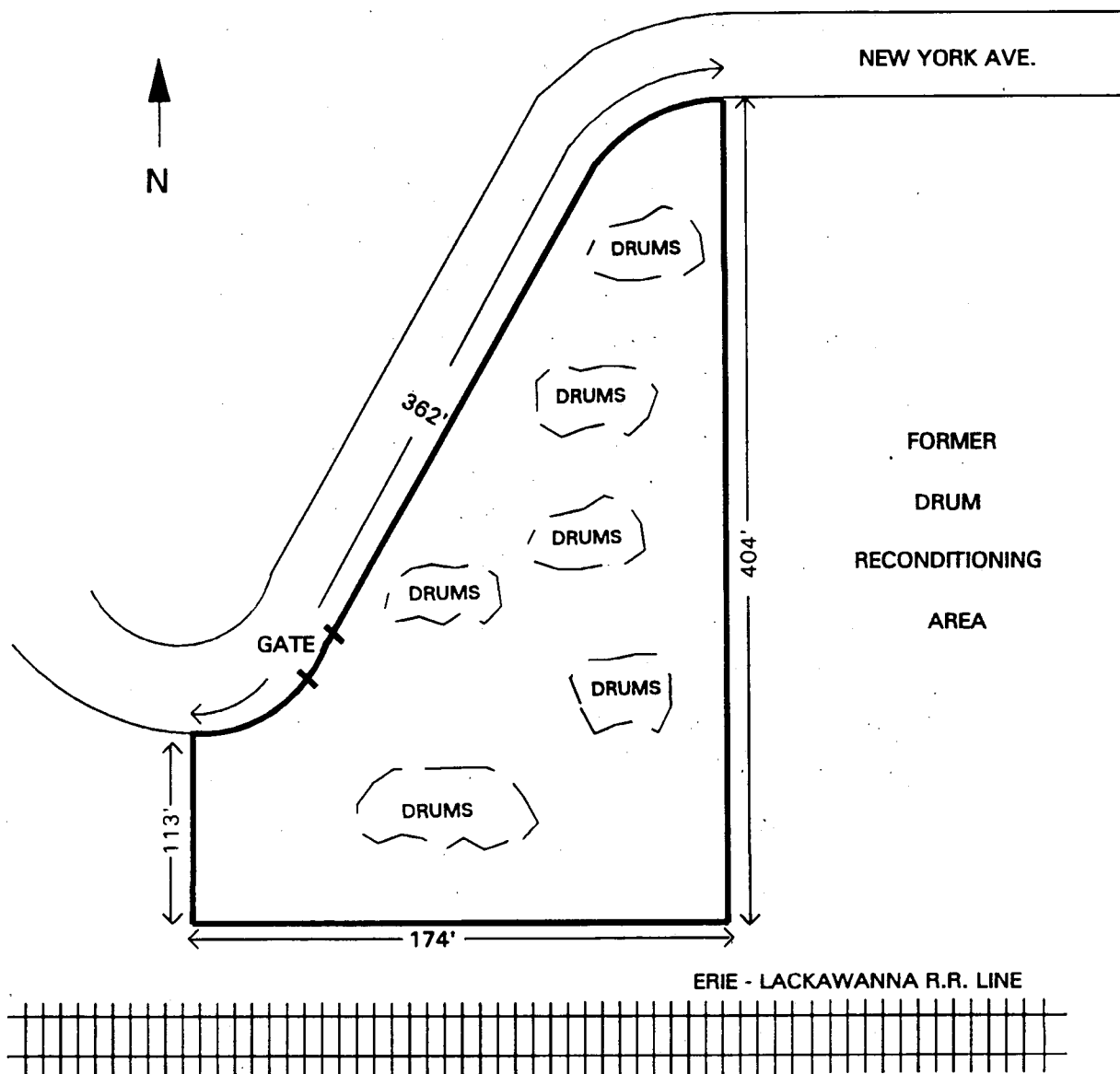
IN ASSOCIATION WITH FOSTER WHEELER CORP.,
C.C. JOHNSON & MALHOTRA, P.C., RESOURCE
APPLICATIONS, INC. AND R.E. SARRIERA ASSOCIATES

EPA PM
D. HARKAY

TAT PM
P. DI PASCA

IDEAL COOPERAGE
SITE
JERSEY CITY, NJ

FIGURE 1
LOCATION MAP



Roy F. Weston, Inc.
MAJOR PROGRAMS DIVISION

EPA PM
D. HARKAY

IDEAL COOPERAGE
SITE
JERSEY CITY, NJ

IN ASSOCIATION WITH FOSTER WHEELER CORP.,
C.C JOHNSON & MALHOTRA, P.C., RESOURCE
APPLICATIONS, INC. AND R.E. SARRIERA ASSOCIATES

TAT PM
P. DI PASCA

FIGURE 2
SITE MAP

The vacant site had been used in recent years as an illegal dump for trash, construction debris, and abandoned cars, and as a play area for neighborhood children. Although various city agencies attempted to keep the property secure and free of trash, dumping and trespassing were continual problems. In 1988, seventeen rolloff containers of debris were removed from the site. In April 1989, the City of Jersey City reconstructed the roadway (New York Avenue) adjacent to the site. As part of the construction project, a fence, sidewalk, and guard rail were installed around the site to minimize illegal dumping.

The property had been the subject of numerous inspections and assessments by the EPA, NJDEP, the Hudson County Health Department and the Jersey City Fire Department since the late 1970s. Over 600 drums were identified on site, of which approximately 10% contained liquid or solid material. Many empty drums were severely deteriorated and appeared to have been on the property for many years. Since much of the site consisted of fill material, buried drums and/or contaminated subsurface soil may have also existed. A subsurface investigation conducted by a private consultant in 1985 identified low levels of toluene, perchloroethylene, and petroleum hydrocarbons.

The site was referred by the NJDEP to the EPA on February 3, 1989. Cleanup activities were stalled for over a year while the property owners and a potential buyer of the site were given opportunities to conduct a site cleanup themselves.

EPA and its TAT contractor performed several preliminary site investigations from February to May 1989 which identified drums containing unknown materials. In November 1989, TAT collected liquid and solid samples from sealed drums for field testing and laboratory analysis. Acetic acid and surfactants were detected in several drums containing liquids, while a waxy organic substance was detected in another fourteen drums of solids. A composite sample was collected from the solid material and submitted for laboratory analysis. Organic esters, phenol and phenol compounds, and polynuclear aromatic hydrocarbon compounds were identified in the composite sample. Based on the analytical results and site conditions, an EPA removal action was determined necessary to mitigate the public and environmental threats on the site.

Original estimates of the quantity of on-site drums were low: before the removal action was completed, approximately 1,800 drums were inventoried, of which nearly 180 drums contained liquid or solid material. Since many drums were fitted with polyethylene "bladders" which could withstand corrosion, a large amount of drums containing acidic and alkaline liquids and solids (such as acetic acid and sodium hydroxide) were discovered on site. Other hazardous substances included: organic solids (waxes, tars, and dried paints); inert solids (inorganic metal salts); and flammable and organic liquids (gasoline, solvents, and oil-based paints).

The primary threat to public health posed by the hazardous materials on site was that of human exposure through direct contact or inhalation. Unauthorized access to the site was

possible due to a lack of fencing along the site's southern border. The presence of a play fort constructed of empty drums indicated that the site was actively used by neighborhood children. Many drums in the immediate vicinity of the fort contained hazardous materials and were in poor condition.

A public health threat through human exposure to hazardous vapors produced by a fire was also present at the site. An accidental or deliberate brush fire could have ignited drums containing organic material. The resulting hazardous plume would have affected all residents and workers downwind of the site.

A threat to the environment also existed, since continued deterioration of the drums would have resulted in the release of organic and corrosive compounds, causing surface and subsurface soil contamination.

2. Location of Hazardous Substances

The majority of the drums were concentrated in six piles on site. Figure 2 presents the approximate locations of the drum piles. Stray drums were also located throughout the site and at the foot of the cliff near the railroad tracks. Most drums were stacked in random order, although the large pile in the south-central area of the site (where the play fort was constructed) consisted of drums in neatly-arranged rows and tiers. The majority of the organic and inert solids and corrosive liquids and solids were discovered in the southern area of the site. Drums containing oil-based paints and paint solids were primarily located in the western area of the site. Drums found in the other areas were either empty or contained rainwater.

3. Cause of the Release or Discharge

An unknown quantity of hazardous materials were improperly stored in deteriorated containers on site for nearly ten years. Since site security, maintenance, and remediation were not provided by the property owners, the magnitude of the threat to human health and the environment increased as more unauthorized personnel gained access to the site, and drums were allowed to deteriorate and release their contents.

4. Efforts to Locate and Obtain Response from Responsible Parties

Three individuals have been identified as potentially responsible parties (PRPs): Marie Monck, Richard Pascale, and Maureen Pascale. Until Ideal Cooperage ceased operations, the company had been owned and operated by George Monck, who is now deceased. In November 1984, ownership of the site was transferred to three family members: Mr. Monck's widow, Marie Monck, and her two sons, John and Richard Pascale. When John Pascale passed away, his ownership interest was transferred to his wife, Maureen.

Negotiations between EPA and the PRPs began in December 1989. A consent agreement for access to the property was signed by Richard Pascale on December 12, 1989, which granted EPA authority to conduct a site investigation. However, an EPA investigation was not initiated since a prospective purchaser of the site, Harvey Gerber Builders, was to conduct site characterization work on the property. On March 9, 1990, EPA was informed that the PRPs and/or the prospective purchaser of the property would possibly perform the cleanup, and that a cleanup work plan would be prepared for EPA review. However, no work plan was ever received by EPA.

In late 1990, the NJDEP Bureau of State Case Management issued an Administrative Consent Order (ACO) to Marie Monck and Richard Pascale requesting a full Remedial Investigation/ Feasibility Study of the site. On November 2, 1990, EPA issued its own ACO requesting a site cleanup. On December 4, 1990, the attorney for the PRPs informed the EPA Office of Regional Counsel that his clients were financially unable to undertake or participate in a site cleanup. The likelihood of recovering cleanup costs was further diminished by the death of Marie Monck in early 1991.

B. Organization of the Response

The response action was divided into two phases. Phase I consisted of: a preliminary assessment to gather background information; several on-site investigations to confirm the threat to the public and environment; development of a work plan, health and safety plan, and sampling plan; and drafting of the action memorandum to allocate funds. Phase II consisted of the removal action, which was divided into the following tasks:

Site Preparation and Empty Drum Staging/Removal - Brush and small trees were cleared, non-hazardous scrap material was removed, and minor grading was performed. Crushed stone was also placed directly inside the front gate as part of the "clean zone". All empty drums were segregated from those containing material and shipped to an off-site drum recycler.

Drum Staging, Sampling, Field Screening, and Bulking - Drums containing hazardous materials were staged, sampled, and field-tested for hazardous characteristics. Compatible materials were then bulked into new or existing drums.

Composite Sampling, Analysis, and Off-Site Disposal - Composite samples of all waste streams were prepared and submitted for laboratory analysis. Off-site transportation and disposal of hazardous materials was arranged upon review of analytical results.

Test Pit Excavation - Six test pits were excavated to a maximum depth of 12 feet. Surface and subsurface soil samples were collected and submitted for laboratory analysis.

Table 1 outlines the agencies and parties involved in the response.

TABLE 1 - ORGANIZATION OF THE RESPONSE

<u>AGENCY/PARTY</u>	<u>CONTACT</u>	<u>DESCRIPTION OF DUTIES</u>
USEPA Region II Response and Prevention Branch 2890 Woodbridge Avenue Edison, New Jersey 08837 (908) 321-6614	J. Daniel Harkay	Federal OSC responsible for overall project oversight and control.
New Jersey State Department of Environmental Protection 2 Babcock Place West Orange, New Jersey 07052 (201) 669-3981	David W. Oster	Referred site to EPA, participated in site investigation, and provided historical information.
City of Jersey City Division of Engineering 280 Grove Street Jersey City, New Jersey 07302 (201) 547-5562	John D. McDonald	Coordinated assistance of city services.
Jersey City Incinerator Authority 501 Route 440 Jersey City, New Jersey 07305 (201) 432-4645	Thomas E. Harrison	Coordinated communications with city agencies, and arranged disposal of non-hazardous debris.
Roy F. Weston, Inc. Technical Assistance Team (TAT) 1090 King Georges Post Road Suite 201 Edison, New Jersey 08837 (908) 225-6116	Peter Di Pasca, Jr.	Provided EPA with technical assistance, site management, administrative support, drum sampling, field testing, waste profiling, waste disposal solicitation, photo and site documentation, and report preparation.
S & D Environmental Services, Inc. Emergency Response Cleanup Services (ERCS) 2 Gourmet Lane Edison, New Jersey 08837 (908) 549-8778	Edward A. Twilley	Provided site security, personnel, and equipment necessary for the cleanup, and conducted the removal action. Also responsible for site safety, test pit excavations, soil sampling, and coordination of laboratory analysis, transportation, and waste disposal.

C. Injury or Possible Injury to Natural Resources

1. Content and Time of Notice to Natural Resource Trustees

Based on site conditions, no notification to natural resource trustees relating to injury or possible injury to natural resources was required.

2. Trustee Damage Assessment and Restoration Activities

Assessment activities and restoration efforts for damaged natural resources were not required.

D. Chronological Narrative of Response Actions

1. Threat Abatement Actions

On September 13, 1990, the Action Memorandum for the site was authorized by the Division Director. The total estimated cost for the removal action was \$ 246,000, of which \$ 180,000 was for mitigation contracting.

On December 27, 1990, the ERCS contractor, S & D Environmental Services, Inc., met with the EPA OSC and the TAT contractor, Roy F. Weston, Inc. to inspect the site for development of a work strategy. The months of January, February, March and April, 1991 were used to develop a health and safety plan, sampling plan and work plan; to notify and coordinate removal activities with Jersey City officials; and for preparation of site activities.

On March 28, 1991, warning signs were placed at four locations around the perimeter of the site. On May 7, 1991, EPA, TAT and ERCS mobilized to the site to begin six consecutive weeks of cleanup activities. A weekly summary of the removal action is provided below:

Week of May 7 - 10, 1991

Site preparation and drum staging were performed during the first week of on-site activity. ERCS cleared brush and small trees with "weed wackers" in order to locate scattered drums. A track loader was used to clear debris and brush, and to assist in drum restaging. Approximately 680 empty drums and 35 drums containing material were restaged during the week. A new front gate was installed, and 32 cubic yards of road stone were spread out directly inside the front gate to create a "clean zone". TAT and EPA also began soliciting bids from drum recyclers for disposal of the empty drums.

Week of May 13 - 17, 1991

ERCS completed drum staging and segregation, and consolidated non-hazardous debris into several piles to create more working space. The track loader was demobilized, and an excavator was brought on site to relocate "hard-to-reach" drums. Thirty (30) cubic yards of non-hazardous scrap metal were shipped off site to a local scrap metal recycler. At this stage of the removal action, on-site personnel realized that the initial estimate of 600 on-site drums was low: approximately 1,800 drums were inventoried once drum staging was completed. Approximately 180 drums were found to contain liquid or solid material.

As ERCS finished staging all empty and filled drums, TAT began sampling, field-testing, and classifying all drums which contained aqueous liquids. Approximately 45 drums were sampled and classified during the week. An empty drum recycler was selected, and 241 empty drums were shipped offsite. TAT performed a compliance check on the drum recycler before initiating off-site drum shipments.

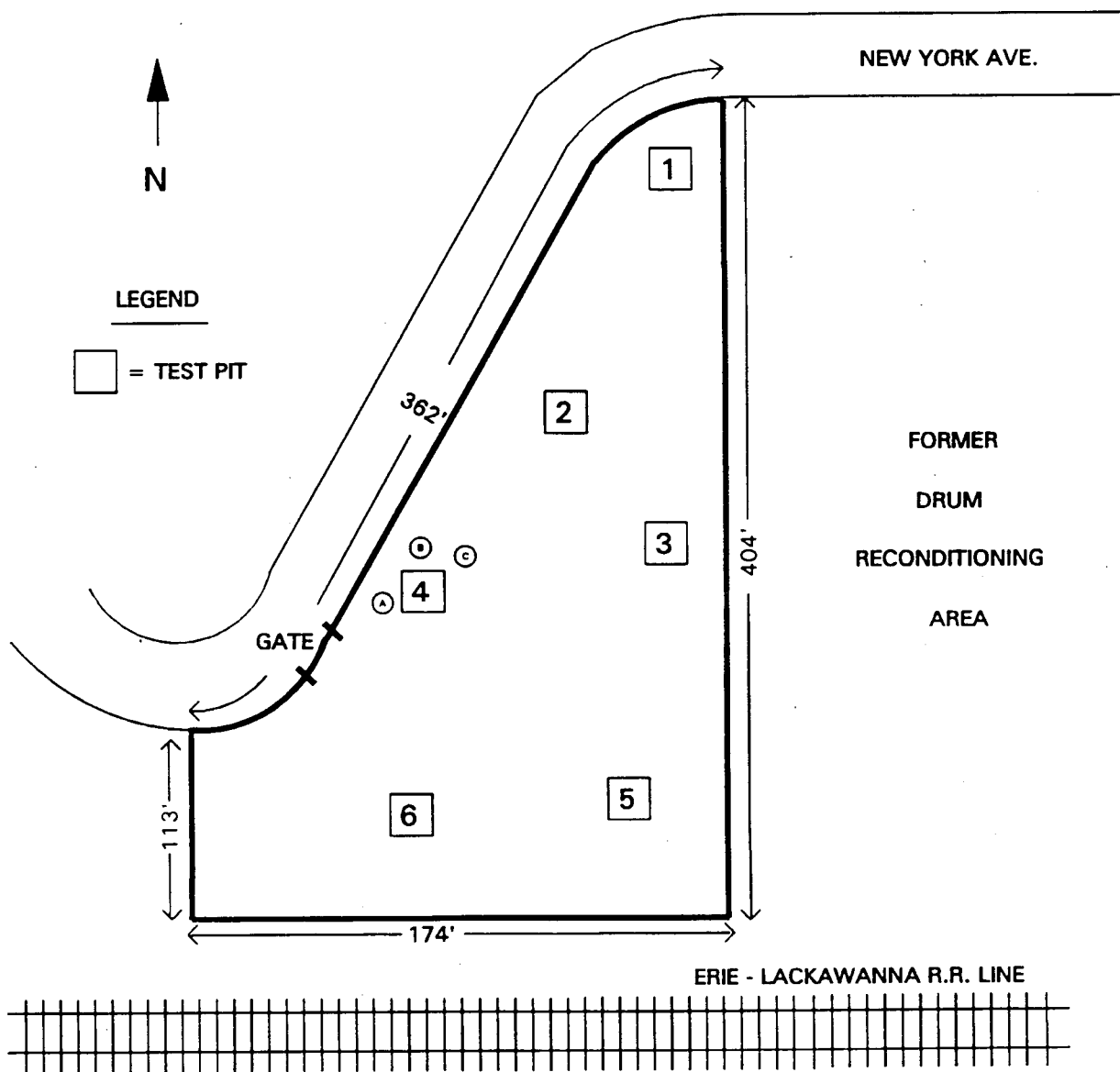
Week of May 20 - 24, 1991

Aqueous liquid drums which were classified the previous week were bulked into four (4) drums. ERCS began overpacking drums in poor condition which contained solid material. ERCS also assisted TAT in collecting drummed solids samples. Approximately 70 drum samples were sampled and field-tested during the week, and each drum was assigned to a specific waste stream. As the drums were classified, ERCS began drum bulking and overpacking procedures. Four hundred seventy-three (473) empty drums were shipped off site during the week (714 drums to date). The excavator was demobilized and a backhoe was brought on site to assist in drum operations.

On May 22nd, six (6) test pits were excavated to a depth of 12 feet at various locations throughout the site. A test pit location map is presented as Figure 3. Soil samples were collected at three depths from each pit and submitted for laboratory analysis. Soil types and PID (HNu) readings were also recorded. Based on visual observations, only one test pit, located along the eastern property line, revealed possible subsurface soil contamination. The soil was black in color and produced an HNu reading of 10 units above background conditions. All six test pits revealed subsurface debris, such as bricks, cobblestones, large concrete blocks, and telephone poles. No buried drums were discovered.

Week of May 28 - 31, 1991

ERCS continued bulking and/or overpacking drummed solid material. A pneumatic chisel was used to cut open crushed drums for sampling and bulking. Several drums of flammable liquid (gasoline and waste oil) were also bulked into two (2) drums. All flammable liquids were field-tested for PCBs before bulking (results were negative). The



Roy F. Weston, Inc.
MAJOR PROGRAMS DIVISION

IN ASSOCIATION WITH FOSTER WHEELER CORP.;
C.C. JOHNSON & MALHOTRA, P.C., RESOURCE
APPLICATIONS, INC. AND R.E. SARRIERA ASSOCIATES

EPA PM
D. HARKAY

TAT PM
P. DI PASCA

IDEAL COOPERAGE
SITE
JERSEY CITY, NJ

FIGURE 3
TEST PIT
LOCATION MAP

backhoe was demobilized and a "bobcat" was brought on-site. TAT continued sampling and field-testing operations: twenty-five (25) drums were screened during the week (140 drums to date). Two trailer loads of empty drums (501 drums) were also shipped off site (1,215 drums to date). A sample of the flammable liquid waste stream was collected and submitted to a disposal facility for analysis and disposal acceptance.

Week of June 3 - 7, 1991

ERCS completed opening, bulking, and overpacking all drummed solid and liquid material. TAT also completed sampling and field-testing procedures. All hazardous materials in the approximately 180 drums were safely bulked into 84 drums. A final survey of the site was also performed to locate any "stray" drums.

Week of June 10 - 14, 1991

Two (2) drums of flammable liquid were shipped off site to a disposal facility for fuels blending. Two additional trailer loads of empty drums (388 drums) were also shipped off site (1,603 drums to date). TAT created eleven (11) composite samples to represent the final waste streams and submitted these samples to a private laboratory for disposal analysis. Final demobilization of equipment was also completed. All drums containing material were restaged near the front gate pending off-site disposal. A diagram of the drum staging area was provided to the Jersey City Fire Department and Incinerator Authority to be used in case of an emergency situation during the interim demobilization period.

Once all hazardous materials were safely bulked, overpacked and/or repacked, only single-day trips to the site were necessary to complete the removal action. The final trailer load of empty drums (183 drums) was shipped off site on June 20, 1991 (1,786 drums total). As the trailer was loaded, a full drum of organic solids was discovered underneath the drum pile. The drum was overpacked and staged near the front gate for disposal with other compatible materials.

Analytical results from the May 22nd test pit excavations were received in late June. All sample analyses revealed background levels of organic compounds and metals, except for the surface sample collected from test pit # 4, where a mercury concentration of 517 ppm was detected. The sample was reanalyzed twice at the request of EPA to confirm the elevated mercury level. Confirmation analysis revealed concentrations of 107 and 113 ppm.

Analytical results for the 11 composite drum samples were received in late July. These results were reviewed and summarized by TAT for use in soliciting disposal bids.

On September 3rd, a representative for Petro-Chem Processing, Inc. of Detroit, Michigan, a kiln fuel blender and TSDF, met with TAT and ERCS on site to inspect the drums, collect a sample, and provide a disposal bid. Petro-Chem was subsequently selected as the most cost-effective disposal facility for all remaining organic wastes on site.

All personnel returned to the site on September 18th to label the remaining 65 drums of organic liquids and solids for shipment to Petro-Chem. The drums were shipped off site the following day.

On October 11th, the final 18 drums of inert solids, neutral aqueous liquids, and acidic and alkaline liquids and solids were labeled and shipped off site to Cycle-Chem in Elizabeth, New Jersey. Cycle-Chem subsequently shipped the materials to approved treatment and disposal facilities. This shipment signified the completion of the removal action.

Three surface soil samples were also collected from the test pit # 4 area on October 11th. The specific sample locations are indicated in Figure 3. The samples were submitted to a private laboratory to confirm the elevated level of mercury which was detected in the original surface sample collected on May 22, 1991. The analytical results were received on October 28th, and revealed mercury levels ranging from 28.5 to 292.0 ppm. According to these results, it is evident that mercury contamination exists in the test pit # 4 area. The EPA OSC subsequently requested a health consultation by the Agency for Toxic Substances and Disease Registry (ATSDR) to determine if the mercury contamination identified in the surface soil poses a public health risk. At the time this report was written, no final decision had been specified. Should the conditions at the site require a second removal action, additional sampling will be conducted to delineate the extent of contamination, and another Action Memorandum will be drafted to request funding for the soil removal.

2. Treatment, Disposal, or Alternative Technology Approaches

The two largest hazardous waste streams, the organic liquid and solid streams, were shipped to Petro-Chem Processing, Inc., a disposal facility which blends or repackages waste organic materials for use as supplemental fuel in cement kilns. Since the waste material is reused for another purpose, kiln fuel blending can be considered a form of recycling. The most important parameter for waste material to qualify as supplemental kiln fuel is that the material must exhibit an energy value of at least 5,000 Btus per pound. All organic liquids and dispersible solids were blended into a liquid supplemental fuel, while all non-dispersible solids were repackaged into small pails to be fed into the kilns.

The remaining hazardous waste streams were shipped to Cycle-Chem, Inc., a nearby treatment, storage, and disposal facility (TSDF). Cycle-Chem subsequently shipped the materials to other TSDFs which could provide the proper ultimate treatment or disposal. The flammable liquid stream was recycled as supplemental kiln fuel; the inert, acid, and alkaline solid waste streams were stabilized and landfilled; the aqueous acid and alkaline waste streams were shipped to a wastewater treatment facility; and, due to its low organic content, the neutral aqueous liquid waste stream was incinerated.

Nearly 1,800 RCRA-empty steel drums comprised the largest-volume non-hazardous waste stream on site. Rather than crushing and landfilling the empty drums, Cardinal Compliance, Inc., a drum recycling facility, was selected to incinerate the empty drums, crush or shred the clean drum carcasses, and recycle the material as scrap steel. Scrap metal, such as pipes and automobile parts, comprised the other non-hazardous waste stream. This material was bulked in a rolloff container and shipped off site for recycling. Table 2 lists all material removed from the site and their final disposition.

3. Public Information and Community Relations Activities

On the initial day of cleanup activities, a reporter and photographer from a local daily newspaper, The Jersey Journal, visited the site to obtain information on the cleanup. Information was provided by the EPA OSC and a representative from EPA's Office of External Programs.

TAT compiled the site administrative record during the first week of the removal action and delivered the record to the Five Corners Public Library on Thursday, May 9, 1991. A public notice was placed in the following day's edition of The Jersey Journal announcing the record's availability for public review.

Local public agencies were continuously informed of the progress of the removal action. Representatives from the Jersey City's Division of Engineering, Incinerator Authority, and Fire Department visited the site on several occasions to receive updates on the cleanup and to personally view site activities. During the months awaiting final disposal of the drums, both the Incinerator Authority and the Fire Department were provided with a diagram of the drum restaging area which identified each waste stream and their location.

TABLE 2 - MATERIALS AND DISPOSITION

WASTE STREAM	MEDIUM	QUANTITY	CONTAINMENT - MIGRATION CONTROL	OFF-SITE TREATMENT METHOD	DISPOSAL FACILITY
Empty Drums	Steel, Plastic	1,786 Drs.	None	Recycle	Cardinal Compliance, Baltimore, MD
Non-Haz Debris	Scrap Metal	1 x 30 CY Rolloff	None	Recycle	Naporano Iron and Metal, Newark, NJ
Organic Solids	Solids	59 Drs.	Bulked and/or Overpacked	Kiln Fuel Blending	Petro-Chem Processing, Detroit, MI
Inert Solids [™]	Solids	9 Drs.	Bulked and/or Overpacked	Stabilize and Landfill	Michigan Disposal, Belleville, MI
Acid Solids [™]	Solids	3 Drs.	Bulked and/or Overpacked	Stabilize and Landfill	Michigan Disposal, Belleville, MI
Alkaline Solids [™]	Solids	2 Drs.	Bulked and Repackaged	Stabilize and Landfill	Michigan Disposal, Belleville, MI
Organic Liquids	Liquids	6 Drs.	Bulked and/or Repackaged	Kiln Fuel Blending	Petro-Chem Processing, Detroit, MI
Flam'ble Liquids [™]	Liquids	2 Drs.	Bulked and Repackaged	Kiln Fuel Blending	Keystone Cement, Bath, PA
Aqueous Neutral Liquids [™]	Liquids	2 Drs.	Bulked and Repackaged	Incineration	Thermal Oxidation, Roebuck, SC
Aqueous Acid Liquids [™]	Liquids	1 Dr.	Bulked and Repackaged	Wastewater Treatment	Dupont Chambers Works, Deepwater, NJ
Aqueous Alkaline Liquids [™]	Liquids	1 Dr.	Bulked and Repackaged	Wastewater Treatment	Dupont Chambers Works, Deepwater, NJ

** : Disposed via Cycle-Chem, Elizabeth, New Jersey

E. Resources Committed

Table 3 presents an estimate of all extramural and intramural expenditures for the removal action.

TABLE 3 - REMOVAL PROJECT ESTIMATED TOTAL COST SUMMARY

<u>EXTRAMURAL COSTS:</u>	
Total Cleanup Contractor Costs	\$ 149,000
Total TAT Costs	33,000
Total CLP Costs	0
Total REAC Costs	0
<hr/>	
EXTRAMURAL SUBTOTAL	\$ 182,000
<u>INTRAMURAL COSTS:</u>	
EPA Direct and Indirect Costs	\$ 8,000
<hr/>	
INTRAMURAL SUBTOTAL	\$ 8,000
<hr/>	
<u>ESTIMATED TOTAL PROJECT COSTS:</u>	\$ 191,000
<hr/>	
<u>PROJECT CEILING:</u>	\$ 246,000

II. EFFECTIVENESS OF REMOVAL ACTIONS

A. Actions by PRPs

No assistance was provided by the PRPs during the removal action, but consent for access to the property was granted in December 1989 in order that EPA may conduct its site work. In late 1990, both the NJDEP and EPA issued Administrative Consent Orders

requesting a site cleanup, but the attorney for the PRPs informed both agencies that none of the identified PRPs were financially able to undertake or participate in a cleanup.

B. Actions by State and Local Forces

EPA received its initial site referral from NJDEP's Division of Hazardous Waste Management. Historical site information was also provided by NJDEP. The Jersey City Incinerator Authority provided the rolloff container in which the non-hazardous scrap metal debris was bulked, and removed abandoned cars from the site. The Jersey City Division of Engineering coordinated the assistance of city services, such as providing a policeman to temporarily close New York Avenue while the guard rail was cut away from the front entrance gate.

C. Actions by Federal Agencies and Special Teams

EPA's Office of External Programs provided assistance by responding to media inquiries during the first day of the removal action.

D. Actions by Contractors, Private Groups, and Volunteers

The ERCS contractor, S & D Environmental Services, Inc. provided all necessary personnel and equipment to perform the on-site cleanup activities. Initial work consisted of clearing brush and vegetation, restaging site debris, performing minor grading, and establishing a "clean zone" with crushed stone. Once a full cleanup crew was mobilized, drum restaging and sampling commenced. ERCS was also responsible for drum bulking and overpacking operations; test pit excavations and soil sampling; coordination of laboratory analysis and empty drum removal; and solicitation of transportation and disposal bids. Site security for four days, portable toilets, and heavy equipment were provided through ERCS subcontractors. All health and safety protocol, as well as safety and environmental laws, were observed during the removal action.

The TAT contractor, Roy F. Weston, Inc., provided sampling and field-testing assistance during the preliminary site assessment. Prior to initiation of the removal action, TAT was responsible for the development of the site safety, sampling and analysis, and removal action work plans. TAT's major duties during the removal action were ERCS contractor oversight; drum sampling and field-testing; waste stream development and composite sampling; and coordination of transportation and disposal activities. Other responsibilities included logbook and photo documentation of on-site activities; interpretation of analytical results; solicitation of empty drum removal bids; air quality monitoring of all work areas; soil sampling; development of the site administrative record and the public notice of availability; and the drafting of pollution reports (POLREPS) and other documents.

III. DIFFICULTIES ENCOUNTERED

A. Items That Affected the Response

No technical, naturally-occurring, or uncontrollable items adversely affected the removal action.

B. Issues of Intergovernmental Coordination

No difficulties of intergovernmental coordination were encountered during the removal action. All federal, state, and local agencies were willing to provide assistance to facilitate the cleanup.

C. Difficulties Interpreting, Complying With, or Implementing Policies and Regulations

No policies or regulations affected the efficient conduct of the removal action.

IV. RECOMMENDATIONS

A. Means to Prevent a Recurrence of the Discharge or Release

Routine Facility Inspections: Federal, state, and local environmental agencies should inspect all drum recycling facilities on a regular basis to ensure proper housekeeping and compliance with waste management laws. Since many drum recyclers qualify as small-quantity generators, many of these facilities are often not inspected and eventually become abandoned hazardous waste sites if the facility ceases operations.

B. Means to Improve Removal Actions

On-Site Field Testing: Field testing of drum samples was performed by TAT during the restaging and sampling phases of the removal action. By performing these tests on site, a quick turnaround for test results and waste classifications was provided to ERCS. The waste materials were then bulked and/or overpacked without interruption of site activities.

Kiln Fuel Blending as a Disposal Option: All organic wastes which exhibited an energy value of 5,000 Btus per pound or greater were disposed via kiln fuel blending, rather than traditional incineration. Only 2 drums of organic-contaminated waste exhibiting less than 5,000 Btus per pound were incinerated. Kiln fuel blending is a more cost-effective disposal option than incineration, which costs approximately \$ 300 per drum more than kiln fuel blending. By using kiln fuel blending as a disposal option for the organic wastes which met the required specifications, disposal costs were greatly reduced.

Mobile Command Post: A box truck equipped with a mobile telephone was supplied by TAT for use as a temporary command post. The truck was driven to and from the site each day, thereby eliminating the need for a permanent office trailer and continuous site security, which would have increased the cost of the removal action.

C. Proposals for Changes in Regulations and Response Plans

Since site operations were not hindered by any current policies or response plans, no recommendations for new or revised regulations can be made.

ATTACHMENT

LIST OF SUPPLEMENTAL DOCUMENTS

LIST OF SUPPLEMENTAL DOCUMENTS

The following list contains titles of additional reports and documents concerning the Ideal Cooperage removal action. These supplemental documents comprise the site files which are located at:

USEPA Region II
Removal Action Branch
2890 Woodbridge Avenue
Edison, New Jersey 08837

Contact J. Daniel Harkay, On-Scene Coordinator for the Ideal Cooperage site, at (908) 321-6614 to request access to these supplemental documents:

<u>DATE</u>	<u>DOCUMENT</u>
02/03/89	Removal Request from NJDEP-DHWM
02/16/89	Preliminary Site Investigation Health and Safety Plan
04/89	Project Sampling Plan I
09/26/89	Potential Hazardous Waste Site Preliminary Assessment Report
10/23/89	Potential Hazardous Waste Site Inspection Report
12/12/89	Consent for Access to Property from Property Owner
09/13/90	Removal Site Evaluation and Funding Authorization for a CERCLA Removal Action - Action Memorandum
11/02/90	Draft Administrative Order on Consent
02/91	Project Sampling Plan II
02/21/91	Removal Action Work Plan
03/28/91	Site Safety Plan

<u>DATE</u>	<u>DOCUMENT</u>
05/91	Administrative Record - Regional Copy
05/09/91	Notice of Public Availability from Jersey Journal
02/24/89 thru 11/29/91	Pollution Reports # 1 through 7

<u>MISCELLANEOUS DOCUMENTS</u>
Analytical Results Chain-of-Custody Records Cost Estimates Drum Inventories ERCS Work Orders Field Test Results Hazardous Waste Manifests Hot Zone Entry/Exit Logs Newspaper Articles Photographs Site Entry/Exit Logs Site Maps and Diagrams Three-Bid Forms Waste Profile Forms 1900-55 ERCS Forms